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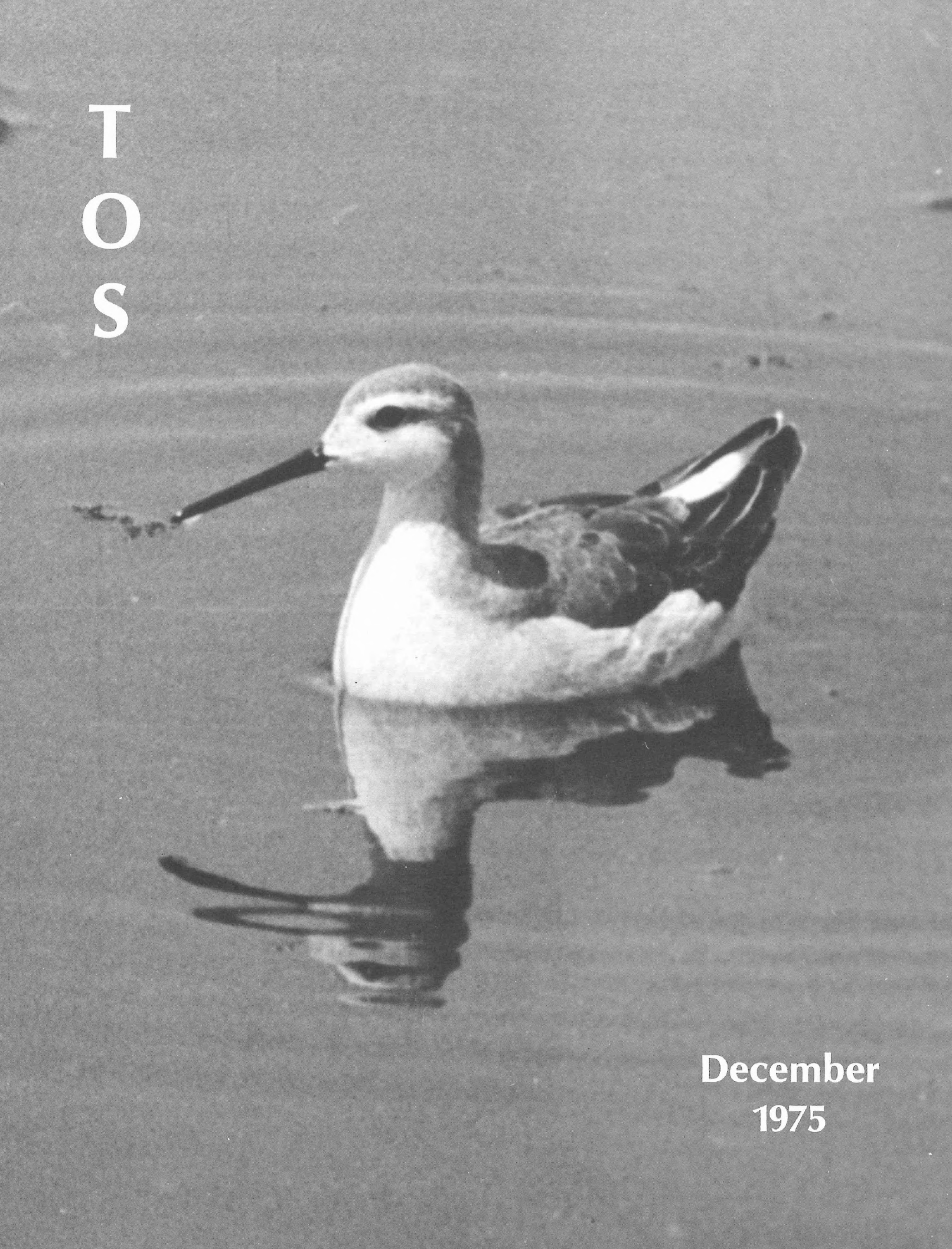

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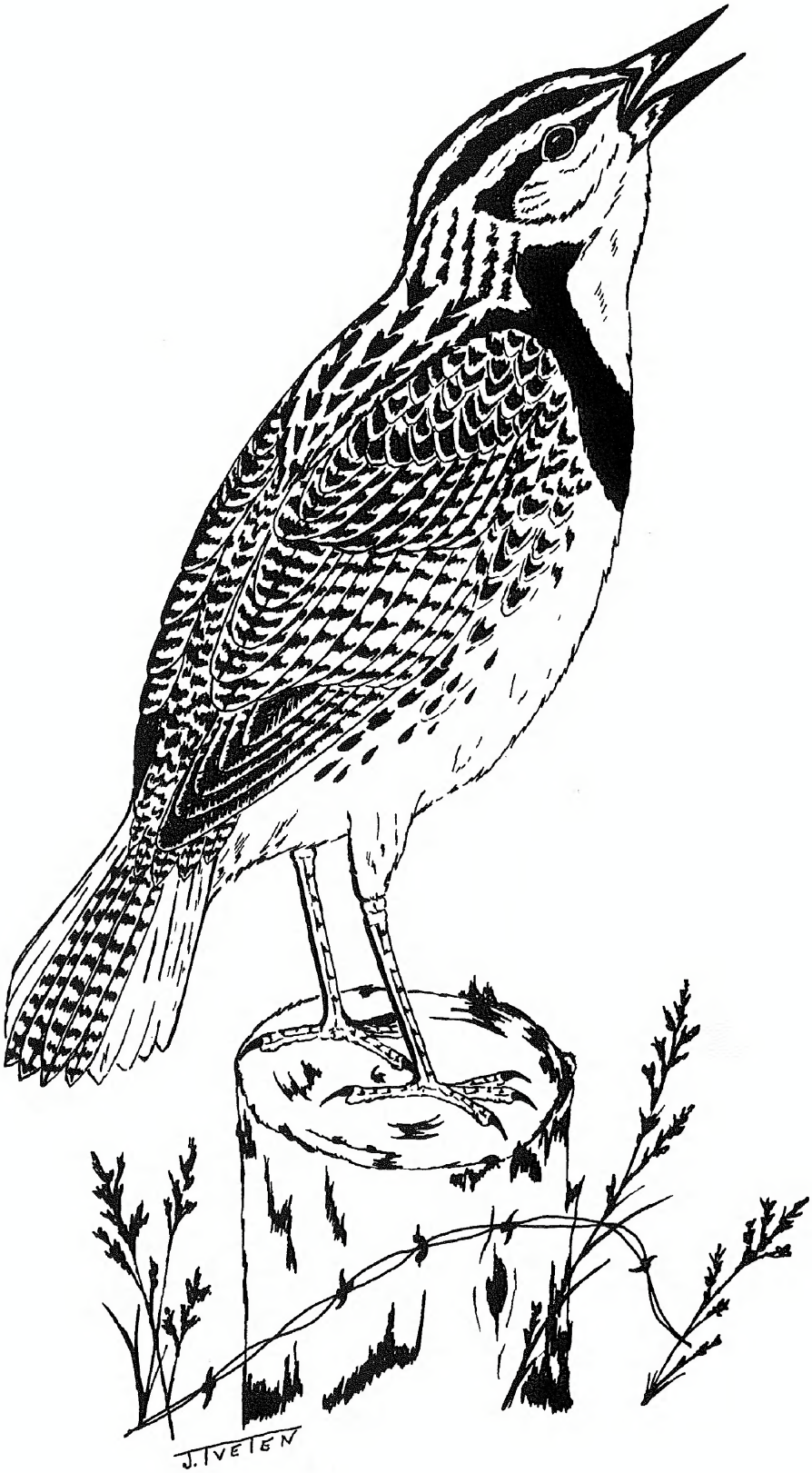
J. IVETEN

Bulletin of the
TEXAS ORNITHOLOGICAL SOCIETY

Volume VIII, December 1975

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The Bulletin and Newsletter of the Texas Ornithological Society are issued to all members not in arrears for dues. Inquiries regarding membership should be addressed to Mr. Victor Emanuel, President, Texas Ornithological Society, 1603 W. Clay, Houston, Texas 77019. Original articles, reports and other items submitted for inclusion in the TOS Bulletin should be sent to the editor, Dr. Michael K. Rylander, Department of Biology, Texas Tech University, Lubbock, Texas 79409.

ABOUT THE AUTHORS. The drawing of the meadowlark on the inside front cover was made by Dr. John Tveten to accompany the very original article on bird song that was contributed by Dr. Charles Hartshorne (p. 2). Dr. Hartshorne is a well-known philosopher who has made significant contributions to ornithology as well as to philosophy. His ideas on bird song have received universal recognition, having been cited in the Encyclopaedia Britannica and the standard texts on bird vocalizations. His most recent book, *Born to Sing*, is a most unique treatment of this subject. Dr. Hartshorne teaches philosophy at the University of Texas.

Dr. Stanley Archer is Professor of English at Texas A&M University. During the last few years his birding interests have concentrated at Lyndon B. Johnson State Park, which has been the subject of his informative article on the birds of this Park.

The listing of birds of Texas which up-dates *The Bird Life of Texas* was compiled by Albert Barr, who is writing his Masters thesis on the breeding biology of Barn Swallows in Texas; Dr. Keith Arnold, who is a regular contributor to the *TOS Bulletin*; and Stephen F. Holm, who is writing his doctoral dissertation on the populations of birds in East Texas. All three are in the Department of Wildlife and Fisheries Sciences at Texas A&M University.

Douglas Mock, who contributed a note in this issue on nesting data of the Great Blue Heron, has been a Fellow at the Welder Wildlife Foundation in Sinton. He is now completing his Ph.D. degree at the University of Minnesota. This year he received the award for the outstanding student paper at both the A.O.U. and Cooper-Wilson Society meetings.

Dr. Jack Tyler, who contributed two notes to this issue, is on the Biology faculty at Cameron College in Lawton, Oklahoma. His field studies of birds in Texas during the past few years have been extensive. Charles Brown, who contributed a report of cowbird behavior, is a student member of the TOS and is an active birder in the North Central Texas area. He has been doing research on Purple Martins for seven years.

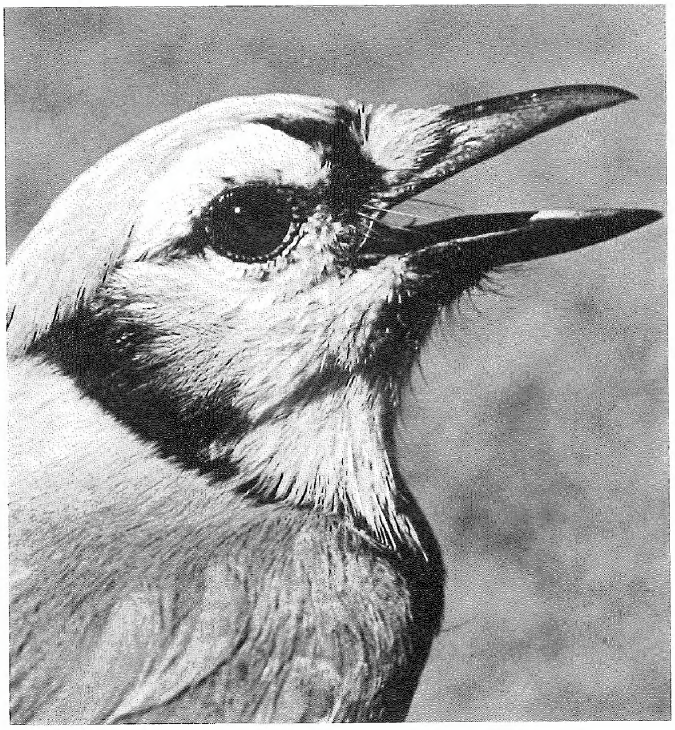
Dr. Douglas Slack teaches in the Department of Wildlife and Fisheries Sciences at Texas A&M University.

Molly Walker, who contributed a book review, is a graduate student at Texas Tech. James Griffing, who prepared the abstracts, is currently in the West Indies as a Peace Corps volunteer, working on endangered species of birds.

Mark Byard and David Renwald, whose photographs appear in the Bulletin, are both graduate students in Wildlife Biology at Texas Tech. John Tveten, the TOS librarian, contributes regularly to the Bulletin with both drawings and photographs. James Hansford, who took the photograph of the Black-chinned Hummingbird, is an amateur naturalist with broad interests. He is Assistant Director of Aviation at Lubbock Regional Airport.

Wilson's Phalarope (front cover) by David Renwald.

Blue Jay (captive) John Tveten



Do Birds Enjoy Singing? (An Ornitho-Philosophical Discourse)

by Charles Hartshorne

WHY do more people study birds than any other class of nonhuman animals? There are at least a dozen reasons for this popularity, such good reasons that one almost wonders how the other animals can attract any enthusiasts at all! That birds sing more and better than other nonhuman creatures—though some insects, amphibians, the wolves and Coyotes, the Gibbon Apes, the Humpbacked Whale, can be said to sing—is but one of these reasons. It is, however, the one that, more than any other, led me to become a keen birder over sixty years ago.

Being a philosopher during most of these years, I have not been content to identify species and keep a life list. I soon ceased to bother with the latter. What I have wanted to do was to discover new truths about song, to probe deeper into the mystery of subhuman music. This interest was intensified when I was asked to teach aesthetics at the University of Chicago. I knew that three musically trained people (Cheney, Matthews, Saunders) had studied songs of Eastern North American birds and had found that, as patterns of sound, they are definitely musical. The composer Dvorak was strongly of this opinion. But this suggests the question, What is the meaning of this prehuman development of musical skill? Are the musical qualities of song important to the birds, or only to human listeners? Do "good" singers differ from "poor" ones in any way other than this, that we human beings prefer the first? Or is the difference biologically significant?

To answer these questions on a basis of solid evidence took many years. It required going to school (at the age of 55) with students of animal behavior, partly by making two summer visits at the University of Michigan Biological Station where Dr. Sewall Pettingill was the excellent ornithologist. But mostly I read books and professional journals and observed birds in many places (in over forty states and about as many countries).

The essential question was, Do birds have a primitive but still genuine musical sense, remotely analogous to our human pleasure in sound patterns? One sign of pleasure in patterns of sound is the tendency to imitate them. That there is a good deal of this in bird life we know, since it has been established that in many species hearing adults of the species sing helps the young to learn the proper songs. Another sign of musical feeling is the tendency to make sounds of some complexity, and not just occasionally and under strong and immediate environmental stress, as in alarm cries, but persistently and for long periods. Birds do this. As Kierkegaard the philosopher-poet put it, not only do birds "sing at their business but" [to judge from their behavior] "their business it is to sing." In the nightless arctic summer, a bird has been known to sing more than twenty out of the twenty-four hours. The creatures must be deriving some satisfaction from this activity.

Soon after E. Howard's *Territory in Bird Life* came out in 1920 I read this book and accepted its main thesis, that song is primarily a means of advertising territorial claims. Aldous Huxley takes this to refute the idea that birds sing from pleasure or love. "Keep out, damn you," or something like that, is, he suggests, the meaning of the

singing. But this is as anthropomorphic as the older idea that song expresses love or pleasure. For one thing, song is addressed not only to rival males who might trespass but also to possible or actual mates. In the typical cases a male adopts a territory and begins to sing abundantly —until a mate joins him, whereupon the singing is greatly diminished. So "come here and join me" is as much the meaning as "keep out." Cries of alarm or anger are different; they have a more nearly single meaning, focused on an immediate situation. When danger is past, or the annoying behavior has ceased, the cries stop. But singing may go on for hours with neither rival nor mate present. Is the bird thinking all the time, "I must warn rivals, should there be any," or "I must attract or please a mate?" Birds are not thinkers. They do not know the territorial theory. They must act chiefly from feeling rather than thought. A musical creature is one that enjoys making musical sounds; with human music there is also intelligent purpose, but with birds feeling must be the primary factor. The behavior of birds in singing fits the hypothesis that for them singing is a self-reenforcing activity, something they like doing. Young birds play at singing as kittens play at fighting. Both activities must be enjoyed, and both are beautiful to observe. The analogy between animal play and human art is a familiar one.

If birds have a musical sense they must enjoy even their rivals' singing. The facts fit the idea that they do enjoy it—provided it is not too close. Rivals often engage in "countersinging," each pausing while the other sings, and then responding. There is a tendency to repeat the other's song, if it is in one's own repertoire, or to take it into the repertoire if it is not, especially if the singer is still young. Countersinging does not lead to boundary fights unless another singer is trespassing, as shown by his song coming from the wrong spot. There is reason to think birds positively like being surrounded with singing rivals, each staying on his own territory but easily audible from neighboring territories.

Highly imitative singing, as in Mockingbirds, Lyrebirds, and many others in the world, suggests that some species have a more catholic taste in sounds than most, and listen with interest to the songs of a variety of species. That most species have narrowly limited taste is what we should expect, on the assumption that their musical sense is naive, primitive. But even human musicians have their narrownesses, their blind spots.

If birds are musical, why do they sing so monotonously, repeating the same little song, as many species do, hundreds or thousands of times a day, day after day? During my first summer at the Michigan Station I put this question and during the second summer I found the answer. Monotony in the aesthetic sense implies memory: the same song is the same only for an animal that is still aware of the previous utterance. The lower animals have vivid memory for only a few seconds. This is the reason parrots utter such short sentences (rarely even five seconds) and the definite patterns in bird song are short, the majority, well under four seconds. The longest one I know is fifteen seconds, and this is very unusual. When a bird sings continuously for longer periods it is stringing together patterns, the sequence not forming a pattern that the bird could reproduce except by accident. If a bird has but a single pattern it usually pauses for a number of seconds, the pauses being far longer than the pattern, before repeating it. Thus the singer avoids monotony. Practically all "true songbirds" (*oscines*) that sing repetitiously pause in this manner. The really monotonous singers, such as the Whippoorwill, are not songbirds, that is, they lack well developed muscles for sound control. They are also not known to imitate. So the facts suggest that the evolution of the ability to sing goes with an evolution of musical sense, including the sensitivity to monotony.

Two questions remain. How objective are the criteria for singing skill, or for "good" or "highly developed" song? And what special biological significance, if any, does a high degree of singing skill have? If by objective is meant something absolute, entirely free from subjective elements, then there may not be any. But a great deal of science is less than absolute in this sense. There are cases where argument might go on perhaps forever as to whether two groups of birds belong to a single species. Relatively objective criteria for singing skill I take to be: (1) loudness, (2) scope or complexity, (3) continuity (shortness of pauses between patterns), (4) musical tones rather than noisy or slurred sounds, (5) musical coherence or *gestalt* closure in the same sense as in human music except for the brevity of the patterns, finally (6) imitative power. I assign numbers from 1 to 9 under each of the six heads and add the numbers for a total score, or overall measure of singing skill. Species scoring 42 or above I classify as "superior." In the world there seem to be nearly 200 of these, nine in England and about twice as many in the forty-eight contiguous states of our country.

How subjective is the list of 190-odd superior singers? It agrees fairly well with traditional lists of superior singers in the various countries, as estimated by specialists in song, including A. A. Saunders in this country and Alexander and Nicholson in England. It also fits biological facts well. (a) All superior songsters are true songbirds, physically well equipped for sound control. (b) If we divide families of songbirds into (1) those with traits or habits tending to make singing biologically important and (2) those without these traits or habits, we find that the superior singers belong overwhelmingly to the first group. The traits or habits include above all territoriality and inconspicuousness—the less a bird can be seen the more it must be heard. Thus a high degree of singing skill correlates well with biological need for song. (c) How *much* a bird sings in a yearly cycle correlates with its rating as superior, middling, or little developed in its singing, as shown in the total scores. Quantity of singing is computed from the length of the song season, continuity and persistence of singing, night singing, singing out of season. I believe that I have shown that quantity, computed in this way, correlates with quality, with degree of singing skill. Thus the Mockingbird sings probably more than any other species in its area, and its chief rivals in this respect are also superior: the two meadowlarks, Wood Thrush, Bachman's Sparrow, Song Sparrow, Lark Sparrow, Carolina Wren, Bewick's Wren, Cardinal. In the Sierra Nevada Mountains the Hermit Thrush, the Solitaire, and

the Fox Sparrow (nearly superior) outsing other species in quantity as well as in quality. There are species of birds that fly little and poorly (slowly, with effort, and crude control of direction), others that fly much and well (fast and with delicate control); so with song. Singing skill like other skills, increases with need, and is more abundantly used.

How one views the world depends a good deal on how one views those parts of it one knows best. I know people and birds best. I see in both the same basic principles and these principles are aesthetic. No animal likes repetition, unrelieved by pauses, beyond a certain point; all animals are stimulated by novelty, but disturbed if it is too great. "Unity in variety," the old formula for beauty, is the key to much of life. It is sad to think of parents who worry about teaching their children morals (often neglecting to set an example by their own actions) yet have scarcely a notion of the prior necessity to help them find life interesting and enjoyable. Desperately bored or unhappy children are not good candidates for moral instruction, especially by those who bore or painfully annoy them. How many married people are too little aware that life together must be sufficiently varied and adventurous, but also sufficiently foreseeable (hence the need for fidelity), if the bond is to be lasting or happy. Life is an aesthetic problem first, last, and always; it is a moral problem only part of the time. An infant has no morality, but it can be bored, and it can be unhappy.

We live in a culture which tends to oscillate between moral ideals and economic goals, leaving genuinely aesthetic ideals neglected. To have a fancy car, motor boat, or snowmobile, but mediocre conversations in or about them, is that a good life? For years I have had no car, but I think I have had a good life. This is more good luck than good management. I had parents who were neither uncomfortably rich nor uncomfortably poor, and too alive, gifted, cultured, and humorous to be boring, also too genuinely wise and kind to be oppressive. They cared about and exemplified morals, but they knew life should be interesting and happy, and that neither morality nor economics suffice for that. My wife had similar parents.

In my view aesthetic principles go deepest. In my religion, to "serve God" is to make one's contribution to the beauty of the world as spectacle for God's enjoyment. Birds interest us because of the way they show their interest in their affairs. As one birder put it, a towhee is "infinitely dedicated to towheeism!" But all animals have also some interest in other animals. We are the most catholic in our ability to enjoy other forms of life. Deity is the eminent level of this ability. God is the supreme form of life-interested-in-other-life. And as we prefer to observe interested and happy animals, rather than bored or unhappy ones, so God prefers interested and happy creatures to those that are bored or miserable.

Alas, people have often been prevented from taking this view by a terrible mistake of theologians. Long ago theology fell into a conceptual trap, the name of which is "omnipotence." This is the pseudo-idea of one Decision-maker whose decisions settle everything. Result, the so-called problem of evil. It is really the problem of bad theology. If God decides everything, why does he not decide that we should all be happy? There is no good answer to a question so poorly phrased. If God decides everything, what do we decide? And if nothing, then how does the word decide have a human meaning?

According to what is called "process theology," every creature every moment decides something that God does not decide for it. Living is deciding, and each creature must do its own deciding, its own living. Scientific determinism, now fortunately qualified even in physics, had the effect of seeming to support bad theology, since both conceived past (or eternal) reality as leaving nothing truly unsettled for us in the present to decide. But life is a process of turning a partly open future into a definite past. The interest of life depends on this process. Every good artist mixes the foreseeable and the unforeseeable in due proportions. Theology and science will eventually find their way to validate this idea for the cosmos. For several centuries both have been moving in this direction. Darwin's denial of old-fasioned teleology, for example, was, as I have argued elsewhere, implicitly (though Darwin was not fully aware of this) a quarrel with precisely what was wrong in theology, its denial of creaturely freedom. Theologians attributed so much decision-making to providence that none was left for real creatures, each living its own life and making its own contribution to the world's future. A creature can only be a lesser creator. Anything less than this means God playing with his own fancies. It has taken theology a century (since Darwin's chief book) even to begin to correct its mistake in this matter.

So the study of bird song is for me a window into reality. A bird with a repertoire of songs has to decide which one to sing next. It is not God's business to make such decisions. Probably people will always disagree somewhat about such profound topics. But I am sure that life cannot be understood in merely mechanical, merely economic, or merely moral terms, and that aesthetic values are more universal than any others.

Is it not clear that the energy crisis, which bids fair to deepen, must in time force us to look for values less dependent on energy than our traditional standard of living? Besides using sun and wind more, we could heat and air condition less and still be happier than we are. For happiness does not chiefly depend on the exact temperatures in our houses. It depends on imaginative and wise living, on many arts, including conversation and friendship as arts. Wasteful cars cost more than good books, but contribute less to life's value. Our squandering of resources, unique in the world's history, is thoughtless and childish. (Some of us thought so before the energy crisis.) Our design for living needs radical revision. This is a task so immense and challenging that it is sad indeed to see a large fraction of the young, and the not so young, seeking to escape from boredom through drugs or alcohol, rather than through genuine action. There are more constructive and safer ways to make that escape. If the birds on their level of awareness can avoid monotony, we should be able to do it on ours.

Have I overemphasized the aesthetic aspect; has not science taught us to abstract from values in analyzing

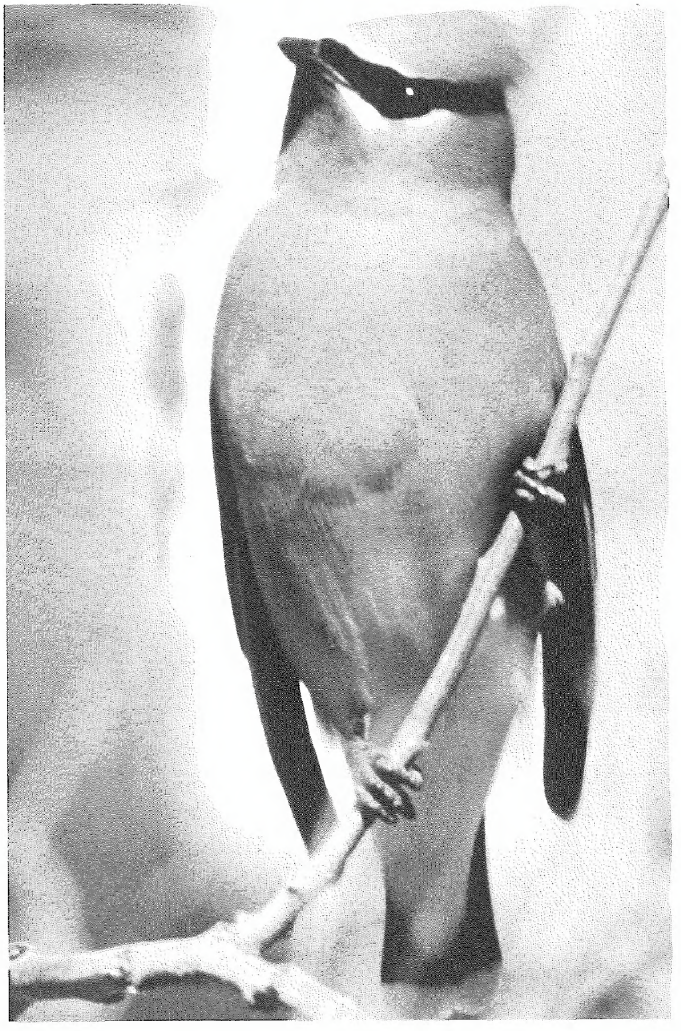
what goes on in nature? Science has taught us to abstract from irrelevant values—those personal to the investigator, peculiar to our species, or rashly imputed to God; but science is, I believe, the search for the real values, those which actually move creatures. Darwinism assumes that animals try to escape danger, get food, care for young. They certainly act as if these objectives were valuable to them. Animals perceive, display what in us is called curiosity; they act as if observing the world, responding to its endless variety, were for them enjoyable. Why should science forbid us to admit these apparent truths about animals? The point is not to deny that animals have values, preferences, enjoyments, but to find out what these are. It was a scientific error to suppose that song was not functional, or was functional only in relation to a mate—for there is the territorial function. But a bird is not as conscious as we are of the ultimate biological functions of its actions. An activity as persistent, and as devoid of immediate external stimulus or relevance as singing, must have some psychological basis other than the dual functions of mating and territorial defence. A primitive musical sense fits the requirements. Species with a great need for song will have more of this sense than those with slight need. To act in the right way for individual and species survival the animal must feel in the right way. By danger it must be caused to fear, by an empty stomach to desire food, by a mate to desire copulation. By a need for sustained, distinctive sound production—and music is more distinctive than mere noise—an animal must be caused (by mutations, variations, and natural selection) to have a liking, as well as organs, for such production, in other words, a musical sense.

One thing more. Who could count the scientists, especially the most creative ones, who have told us that, in the words of one of them, "In the arts, as in the sciences, the quest is after the same elusive quality: beauty?" Or again, "beauty is that to which every human mind responds at its deepest and most profound." (The astronomer Chandrasekhar in the University of Chicago Magazine, Summer, 1975.) One could quote to the same effect Heisenberg, Poincaré, Kepler, Aristotle . . . there is no end to the creative minds who have tried to tell us this. Somehow our culture has not quite absorbed the message. Scientific truth is one of the ways in which beauty is made apparent to humanity. Our eyes see the beauty of ocean waves, but the beauty of air waves, waves of radiant energy, probability waves of quantum physics, these forms of beauty can only be enjoyed through the eyes of thought guided by observation and experiment. How much of this vision is made apparent to our children in schools or homes? I fear not a great deal, the reason being that the teachers and parents have mostly not acquired it themselves. And the reason for that? Well, we must stop somewhere. The deepest principle of value, the aesthetic, is the one we must learn to understand. Only so can economic and ethical questions be put in the right perspective. Only so can the harshness of our culture, as shown in the reliance upon violence as preferred antidote to boredom, be mitigated.

Ethical value, goodness, itself is partly a form of beauty (as Emerson said, a noble act is supremely beautiful) and partly, if genuine, goodness is a source of beauty, fostering its production. "Good" people who make life ugly for self and others are suspect. The meaning of life is that it is, or can and should be, interesting and beautiful, that is, intense and prevailingly harmonious. The art of life is action favorable to this end. Life must have pattern, but the patterns should have some openness toward the future. Life is a perpetual creation of novelty, but ideally of novelty within judicious limits. That we seek to predict is a truism for science; the neglected truth is that we also want the future to be partly unexpected. Who wishes to predict the next joke a friend may make?

To return to birds: the more complex a bird's repertoire, the more highly developed the singing, the greater the unpredictability of the next phrase or song. Yet there will be an overall unity of style, and so, aesthetic value. It is all to the good that science is establishing limitations upon predictability. Nor is this a defeat for science, whose functions are twofold: to predict the predictable and explain the limitations on prediction. Only the latter, the undecided aspect, gives scope for decision making. "Science is prediction *and* control"—but the two aspects are not the same. Only where the first ends is anything left for control. And *that* is what matters.

So we can learn wisdom from the birds!



Cedar Waxwing Mark Byard

The Birds of Lyndon B. Johnson State Park

by Stanley Archer

THE Lyndon B. Johnson State Park lies along the Pedernales River near Stonewall, approximately midway between Johnson City and Fredericksburg. Dedicated to the memory of the late President, it is primarily historical, and its thousands of annual visitors throng to see the President's estate across the river and to view wildlife exhibits and artifacts of early life in the Texas Hill Country. Its 269 acres are bounded on the south by U. S. Highway 290 and along the north side by Ranch Road 1, which follows the river from a point about a mile east of the Park to the west side of Stone wall. An additional tract adjoining the Park on the east, purchased but undeveloped, will result in an expansion to 714 acres.

Despite its limited area and despite extensive development that includes parking lots, a swimming pool, tennis courts, and a baseball field, visitors should not conclude that it holds no delights for the birder. Its location in the Hill Country assures an interesting combination of eastern and western species. The Park features a fine nature trail as well as wooded picnic areas.

There are still grassy fields and weed fields for wintering birds; and the Pedernales River, with its low water dams, attracts numerous waterfowl. The tree and bush cover is extensive and varied, with approximately thirty varieties identified to date. Live Oak, Post Oak, Mesquite, Juniper, Native Pecan, Sugar Hackberry, Yaupon, and Sumac are abundant. Twenty-seven varieties of wildflowers have been identified within the Park. Among the approximately one hundred types of grasses that grow inside the park, Bermuda Grass, Johnson Grass, Little Bluestem, Bushy Bluestem, Canada Wild Rice, Switch Grass, and Eastern Gamma Grass are notable. Dove Weed (Croton), Giant Ragweed, and Goldenrod are common.

My observations of the bird life in the Park began casually in the summer of 1971. To date twenty-one visits have been made to observe species during all seasons of the year. Data given below are based upon these visits, which ranged from hour long stops to overnight stays that permitted afternoon and morning observations. In the absence of a check list, the data may be useful to those who choose to bird in the Park.

An average trip yielded thirty-one species, with the winter months averaging considerably higher than the summer months. June, July, and August visits averaged just over twenty-two species, while December, January, and February visits averaged approximately thirty-five species. Only twice were over fifty species recorded during a single visit—March, 1975 (51) and May, 1975 (56).

A total of 114 species have been identified in the Park, along Ranch Road 1, or on the river opposite the Park. The preliminary check list appended to this paper places each species in a probable category, depending upon time(s) observed.

Thirty-one species are classified as probable permanent residents (P). There are forty-five probable winter residents (W), and twenty-two species are classified as summer residents (S). Migrants or accidentals (M) number sixteen. The lower case letters following each species give an impression of the numbers to be expected: *abundant* (a), *common* (c), *uncommon* (u), and *rare*—one sighting of one individual (r).

Among the species listed, two call for a special note of explanation. Turkeys are listed as permanent residents; they are a part of the enclosed wildlife exhibit of the Park and can be easily observed at any time. However, they are often seen outside the enclosure roaming free within the Park. Bronzed cowbirds are listed as summer residents on the basis of sightings in June 1974 and May/June, 1975. There were other probable sightings, but this observer will not call a bronzed cowbird in this region of Texas until he can see the red eye through 7 × 50 binoculars.

The number and variety of birds and the pleasant atmosphere of the Park make it an inviting area to the birder. An added appeal lies in the fact that there is as yet no entrance fee. But one might note what the birder will not likely find. Such Hill Country specialties as the Scrub Jay, the Golden-cheeked Warbler, and the Rufous-crowned Sparrow have not been recorded. And the lone Black-capped Vireo recorded was undoubtedly accidental, as the habitat does not appear congenial to that species. Even though a Boat-tailed Grackle is depicted on one of the interpretive illustrations along the nature trail, no grackles have been recorded within the Park. Black Vultures commonly dot the skies near Johnson City; is there an invisible line that prevents their sailing a few miles west? These species may well be recorded in the future, and no doubt the observer who can visit the Park during migration will encounter pleasant surprises. But I believe the species most likely to be seen have been recorded.

—Department of English, Texas A&M University, College Station 77843.

PRELIMINARY CHECK LIST

Pied-billed Grebe (W,c)
Great Blue Heron (P,u)
Green Heron (S,c)
Little Blue Heron (S,r)
Cattle Egret (S,u)
Mallard (W,c)
Gadwall (W,c)
Pintail (W,u)
Green-winged Teal (W,u)
Blue-winged Teal (W,u)
Cinnamon Teal (M,u)
American Widgeon (W,c)
Shoveler (W,c)
Redhead (M,u)
Lesser Scaup (W,c)
Ruddy Duck (M,u)
Turkey Vulture (P,u)
Red-tailed Hawk (P,u)
Swainson's Hawk (M,u)
American Kestrel (W,c)
Bobwhite (P,c)
Turkey (P,c)
American Coot (W,c)
Killdeer (P,c)
Common Snipe (W,c)
Spotted Sandpiper (W,u)
Solitary Sandpiper (M,u)
Greater Yellowlegs (W,u)
Least Sandpiper (W,u)
Rock Dove (P, u)
Mourning Dove (P,a)
Inca Dove (P,u)
Yellow-billed Cuckoo (S,c)
Roadrunner (P,r)
Screech Owl (P,r)
Great Horned Owl (P,u)
Chuck-will's-widow (S,c)
Common Nighthawk (S,u)
Lesser Nighthawk (M,u)
Chimney Swift (S,c)
Ruby-throated Hummingbird (M,r)
Black-chinned Hummingbird (S,c)
Belted Kingfisher (P,c)
Common Flicker (Yellow- and Red-shafted) (W,c)
Golden-fronted Woodpecker (P,a)
Red-headed Woodpecker (P,c)
Yellow-bellied Sapsucker (W,c)
Ladder-backed Woodpecker (P,c)
Eastern Kingbird (M,u)
Western Kingbird (S,u)
Scissor-tailed Flycatcher (S,a)
Great Crested Flycatcher (S,c)
Eastern Phoebe (P,a)
Empidonax Flycatcher (M,u)
Olive-sided Flycatcher (M,u)
Barn Swallow (S,c)
Cliff Swallow (S,u)
Purple Martin (S,c)
Blue Jay (W,u)
Common Crow (P,c)
Carolina Chickadee (P,c)
Black-crested Titmouse (P,a)
Bewick's Wren (P,u)
Carolina Wren (P,u)
Mockingbird (P,a)
Brown Thrasher (W,r)
Robin (W,a)
Hermit Thrush (W,u)
Eastern Bluebird (W,u)
Ruby Crowned Kinglet (W,c)
Water Pipit (W,u)
Cedar Waxwing (W,a)
Loggerhead Shrike (P,c)
Starling (P,u)
Blacked-capped Vireo (M,r)
Bell's Vireo (S,c)
Blue-winged Warbler (M,r)
Tennessee Warbler (M,u)
Orange Crowned Warbler (W,u)
Yellow Warbler (M,r)
Yellow-rumped Warbler (Aubudon's [W,u] and Myrtle [W,c])
House Sparrow (P,a)
Eastern Meadowlark (P,a)
Western Meadowlark (W,c)
Yellow-headed Blackbird (M,u)
Red-winged Blackbird (P,a)
Orchard Oriole (S,a)
Rusty Blackbird (W,u)
Brewer's Blackbird (W,c)
Brown-headed Cowbird (P,c)
Bronzed Cowbird (S,u)
Summer Tanager (S,u)
Cardinal (P,a)
Rose-breasted Grosbeak (M,r)
Blue Grosbeak (S,u)
Painted Bunting (S,a)
Dickcissel (S,u)
House Finch (S,u)
American Goldfinch (W,c)
Lesser Goldfinch (W,c)
Rufous-sided Towhee (W,u)
Savannah Sparrow (W,c)
Grasshopper Sparrow (W,u)
Vesper Sparrow (W,u)
Lark Sparrow (P,a)
Dark-eyed Junco (W,c)
Chipping Sparrow (W,c)
Field Sparrow (W,u)
Harris's Sparrow (W,a)
White-crowned Sparrow (W,u)
White-throated Sparrow (W,c)
Fox Sparrow (W,r)
Lincoln's Sparrow (W,u)
Song Sparrow (W,c)

Acknowledgment: I am grateful to Mr. Harold C. Woods, Superintendent, LBJ Park, and to Mr. David Riskind, Texas Parks and Wildlife Department, for their generous assistance in identifying Park flora.

Great Blue Heron — Mark Byard

A LISTING OF COUNTY RECORDS FOR BIRD SPECIMENS IN THE TEXAS COOPERATIVE WILDLIFE COLLECTIONS NOT REPORTED IN OBERHOLSER'S "THE BIRD LIFE OF TEXAS"

by

Albert L. Barr

Keith Arnold

Stephen F. Holm

THE recent publication of Oberholser's *opus magnus*, (1974. The Bird Life of Texas, The University of Texas Press, Austin & London, 2 Vols., 1069 p.) was a long-awaited event that released a large volume of heretofore unavailable data. Much of the information was summarized in the individual species distribution maps. It quickly became apparent to us, however, that these maps were lacking in information content. Many gaps existed, by counties, in the distribution of numerous species that we knew were represented in the Texas Cooperative Wildlife Collections (TCWC) at Texas A&M University.

We therefore offer the following listing for two reasons: 1) owners of the Oberholser work may update these maps; and 2) many specimens on deposit in the TCWC will be documented in the literature. This listing contains only those specimens for which *no county* record was given on the distributional *map or in the text* in Oberholser. We have made no attempt to add numerous sightings and photographic records to this listing. The listing is given in the order of appearance in Oberholser. Scientific nomenclature follows The A.O.U. Check-list of North American Birds (1957, 5th edition) and the Thirty-second Supplement... (1973, Auk, 90: 411-419); where it differs, the Oberholser nomenclature is given in parentheses.

We encourage persons situated at institutions with small collections to compile similar listings for their area. In this way we can keep our knowledge of the Texas avifauna updated.

Species	*County*	*Date*
Gavia immer	Jim Wells	Nov 1969
Podiceps auritus (*Dytes auritus*)	Newton	Feb 1974
Podilymbus podiceps	Newton	Oct 1973
Puffinus gravis (Arnold, K. A. 1975. Auk, 92:394-395)	Galveston	Nov 1973
Pelecanus erythrorhynchos (*Cyrtopelecanus eryhrothynchos*)	Kaufman	Dec 1969
Pelecanus erythrorhynchos (*Cyrtopelecanus erythrothynchos*)	Jim Wells	July 1970
Phalacrocorax auritus	Washington	Dec 1967
Phalacrocorax auritus	Newton	July 1974
Egretta thula (*Leucophoyx thula*)	Ellis	June 1970
Hydranassa caerulea (*Florida caerulea*)	Ellis	June 1970
Butorides virescens	Brown	Aug 1967
Butorides virescens	Newton	Sept 1973
Bubulcus ibis	Newton	Aug 1974
Nycticorax nycticorax	LaSalle	Aug 1939
Nyctanassa violacea	Denton	July 1939
Nyctanassa violacea	Brazos	Oct 1968
Ixobrychus exilis	Jim Wells	Apr 1971
Jabiru mycteria	Harris	July 1973
Olor columbianus	Fort Bend	Dec 1972
Olor columbianus	Kimble	Feb 1960
Branta canadensis	Waller	Jan 1969
Branta canadensis hutchinsii (*Branta hutchinsii-Branta canadensis*)	Goliad	Dec 1942
Dendrocygna autumnalis	Burleson	Nov 1972
Anas strepera (*Chauleasmus streperus*)	Burleson	Jan 1967
Anas americana (*Mareca americana*)	Burleson	Dec 1967
Anas americana (*Mareca americana*)	Ellis	Mar 1970
Anas acuta (*Dafila acuta*)	Navarro	Mar 1965
Anas acuta (*Dafila acuta*)	Ellis	Jan 1969
Anas clypeata (*Spatula clypeata*)	Washington	May 1938
Aix sponsa	Newton	Oct 1973
Aythya americana (*Nyroca americana*)	Leon	Dec 1967
Aythya valisineria (*Aristonetta valisineria*)	Walker	Oct 1936
Aythya valisineria (*Aristonetta valisineria*)	Burleson	Jan 1967
Elanus leucurus	Harris	Jan 1967
Elanus leucurus	Brazos	Mar 1975
Ictinia misisippiensis	Jim Wells	No date
Buteo lagopus	Midland	Dec 1960
Buteo regalis	Crane	Feb 1972
Buteo platypterus (*Craxirex platypterus*)	Newton	May 1974
Aquila chrysaetos	Trinity	Apr 1962
Aquila chrysaetos	Burleson	Mar 1971
Circus cyaneus	Kinney	No date
Ortalis vetula	Zapata	Dec 1939
Grus canadensis	LaSalle	Jan 1973
Rallus elegans	Houston	Dec 1945
Rallus limicola	Wharton	Sept 1938
Rallus limicola	Brazos	Apr 1973
Porzana carolina	Wharton	Sept 1938
Charadrius melodus	Jefferson	Apr 1967
Charadrius semipalmatus (*Aegialeus semipalmatus*)	Brazos	May 1973
Charadrius montanus (*Podasocys montanus*)	Culberson	Mar 1942
Capella gallinago	Burleson	Nov 1970
Numenius americanus	Brazos	Apr 1953
Bartramia longicauda	Cottle	Apr 1962
Bartramia longicauda	Newton	Aug 1974
Actitis macularia	Washington	June 1967
Actitis macularia	Newton	Aug 1974
Tringa solitaria	Newton	Aug 1974
Calidris bairdii (*Pisobia bairdii*)	Kenedy	Mar 1969
Calidris minutilla (*Pisobia minutilla*)	Colorado	Aug 1938
Calidris minutilla (*Pisobia minutilla*)	Cottle	Apr 1962
Limnodromus scolopceus (*Limnodromus griseus*)	Brazos	Oct 1970
Micropalama himantopus	Culberson	Aug 1970
Calidris pusillus (*Ereunetes pusillus*)	Harris	July 1938
Calidris mauri (*Ereunetes mauri*)	Colorado	Mar 1938

Calidris mauri (*Ereunetes mauri*)	Brazos	Sept 1969
Tryngites subruficollis	Brazos	May 1973
Limosa fedoa (*Vetola fedoa*)	Newton	June 1973
Recurvirostra americana	Brazos	Sept 1969
Larus argentatus	Newton	Feb 1974
Sterna forsteri	Colorado	Aug 1938
Sterna albifrons (*Sternula albifrons*)	Wharton	Aug 1938
Hydroprogne caspia	Victoria	Sept 1961
Chlidonias niger	Washington	May 1967
Chlidonias niger	Newton	July 1974
Rynchops nigra	Milam	Sept 1961
Scardafella inca	Grimes	Oct 1966
Coccyzus americanus	Trinity	June 1936
Crotophaga sulcirostris	Kenedy	Dec 1968
Tyto alba	Stonewall	June 1960
Otus asio	Newton	Apr, June 1973
Bubo virginianus	Throck-morton	Dec 1939
Bubo virginianus	Van Zandt	Oct 1969
Speotyto cunicularia	Dimmit	Nov 1968
Strix varia	Newton	June, Aug 1973
Strix varia	Milam	Nov 1938
Strix varia	Callahan	Aug 1954
Asio otus	Bell	Dec 1966
Asio otus	Calhoun	Oct 1974
Asio flammeus	Zavalla	Nov 1961
Asio flammeus	Grimes	Feb 1974
Caprimulgus carolinensis (*Antrostomus carolinensis*)	Newton	June 1974
Archilochus alexandri	Somervell	July 1973
Selasphorus rufus	Jim Wells	Jan 1974
Megaceryle alcyon	Newton	June 1973
Chloroceryle americana	LaSalle	Mar 1972
Colaptes auratus	LaSalle	Dec 1939
Sphyrapicus varius	Burleson	Dec 1972
Sphyrapicus varius	Webb	Oct 1973
Sphyrapicus varius	Newton	Mar, Oct 1973
Dendrocopos pubescens (*Dryobates pubescens*)	Newton	Dec 1973
Tyrannus tyrannus	Cottle	Apr 1962
Tyrannus tyrannus	Newton	July 1973
Tyrannus verticalis	Cooke	Sept 1940
Muscivora forficata	Newton	June, Aug 1973
Sayornis phoebe	Newton	May 1974
Empidonax minimus	Brazos	Aug 1969
Empidonax minimus	Hemphill	July 1971
Contopus virens	Newton	May 1974
Contopus sordidulus veliei	Taylor	Aug 1954
Contopus sordidulus saturatus (Only known specimen of this subspecies from Texas)	Midland	Sept 1965
Pyrocephalus rubinus	Throck-morton	Apr 1939
Pyrocephalus rubinus	Lubbock	Aug 1968
Tachycineta thalassina	Presidio	Sept 1967
Tachycineta bicolor (*Iridoprocne bicolor*)	Burleson	Nov 1970
Stelgidopteryx ruficollis	Somervell	July 1973
Hirundo rustica	Trinity	Sept 1937
Petrochelidon pyrrhonota	Burleson	June 1974
Progne subis	Trinity	July 1937
Cyanocitta stelleri macrolopha	Crockett	Apr 1973
Parus bicolor (*Baeolophus atricristatus*)	Cottle	Apr 1962
Parus bicolor (*Baeolophus atricristatus*)	Foard	Apr 1967
Parus bicolor (*Baeolophus bicolor*)	Brazos	Feb 1938
Sitta carolinensis	Walker	Jan 1938
Certhia familiaris	LaSalle	Dec 1939
Certhia familiaris	Kimble	Nov 1938
Troglodytes aedon (*T. domesticus*)	Robertson	Oct 1957
Thryomanes bewickii	Washington	Feb 1973
Cistothorus platensis	Kenedy	Apr 1973
Salpinctes obsoletus	LaSalle	Dec 1939
Dumetella carolinensis (*Lucar carolinense*)	Newton	Apr 1974
Toxostoma rufum (*T. rufa*)	Burleson	Jan 1969
Toxostoma rufum (*T. rufa*)	Brazos	Nov, Feb 1938
Oreoscoptes montanus	LaSalle	Dec 1939
Turdus migratorius	LaSalle	Dec 1939
Turdus migratorius	Newton	Mar 1974
Catharus guttata (*Hylocichla guttata*)	Washington	Mar 1973
Catharus guttata (*Hylocichla guttata*)	Newton	Dec 1973
Catharus ustulata (*Hylocichla ustulata*)	Newton	Mar 1973
Catharus minima (*Hylocichla minima*)	Calhoun	Apr 1938
Catharus minima (*Hylocichla minima*)	Brazos	Apr 1941
Catharus minima (*Hylocichla minima*)	Newton	May 1974
Sialia sialis	LaSalle	Dec 1939
Regulus satrapa (*Orchilus satrapus*)	LaSalle	Dec 1939
Regulus satrapa (*Orchilus satrapus*)	Presidio	Nov 1967
Regulus satrapa (*Orchilus satrapus*)	Newton	Jan 1974
Regulus calendula	Newton	Nov 1973
Bombycilla cedrorum	Ellis	May 1973
Sturnus vulgaris	Robertson	Mar 1951
Vireo griseus	Trinity	June 1937
Vireo flavifrons (*Lanivireo flavifrons*)	Polk	Sept 1937
Vireo flavifrons (*Lanivireo flavifrons*)	Newton	July 1973
Vireo solitarius (*Solivireo solitarius*)	Newton	Jan 1974
Vireo olivaceus (*Vireosylva virescens*)	Taylor	May 1954
Vireo olivaceus (*Vireosylva virescens*)	Lubbock	Apr 1966
Vireo gilvus (*Melodivireo gilvus*)	Presidio	Aug 1967
Mniotilta varia	Newton	June 1973
Protonotaria citrea	Trinity	June 1973
Helmitheros vermivorus (*Vermivora americ*)	Newton	May 1973
Vermivora celata (*Helminthophila celata*)	Cottle	Apr 1962
Vermivora ruficapilla (*Helminthophila ruficapilla*)	Newton	Oct 1973
Parula americana	Trinity	June 1937
Dendroica magnolia (*D. lutea*)	Newton	Apr 1974
Dendroica coronata	Presidio	Nov 1967
Dendroica coronata	LaSalle	Dec 1939
Dendroica coronata	Jones	Dec 1953
Dendroica virens	Jefferson	Oct 1967
Dendroica virens	Kenedy	Jan 1969
Dendroica pensylvanica	Newton	Apr 1974
Dendroica castanea	Waller	Oct 1970
Dendroica striata (*D. breviunguis*)	Howard	Sept 1974
Dendroica striata (*D. breviunguis*)	Newton	Apr 1974
Seiurus aurocapillus	Lubbock	May 1966
Seiurus aurocapillus	Ellis	May 1973
Seiurus noveboracensis	Presidio	Aug 1967
Seiurus motacilla	Presidio	Aug 1967
Seiurus motacilla	Kenedy	Mar 1969
Seiurus motacilla	Newton	June 1974
Oporornis tolmiei	Brazos	Sept 1969
Oporornis tolmiei	Webb	Sept 1972
Icteria virens	Taylor	May 1954
Icteria virens	Newton	Apr 1974
Wilsonia canadensis	Kenedy	Aug 1968
Sturnella magna	Wilson	Jan 1971
Sturnella neglecta (*S. ludoviciana*)	Burleson	Mar 1969
Xanthocephalus xanthocephalus	Burleson	Apr 1955
Agelaius phoeniceus	Culberson	Mar 1942
Agelaius phoeniceus	Newton	June 1974
Icterus spurius	Wood	May 1969
Euphagus carolinus	Burleson	Dec 1972
Euphagus cyanocephalus	Kimble	Nov 1938
Quiscalus quiscula (*Q. aeneus*)	Bell	Apr 1969
Molothrus aenus (*Tangavius aenus*)	Burleson	May 1973
Piranga rubra	Jones	June 1954
Guiraca caerulea	Newton	Apr 1974
Passerina cyanea (*Linaria cyanea*)	Lubbock	May 1966
Passerina cyanea (*Linaria cyanea*)	Newton	May 1973
Passerina amoena (*Linaria amoena*)	Cottle	Apr 1962

Hesperiphona vespertina	Bowie	Feb 1969
Carpodacus purpureus	Lubbock	Feb 1968
(*Erythrina purpurea*)		
Carpodacus purpureus	Newton	Mar 1974
(*Erythrina purpurea*)		
Spinus pinus	Burleson	Dec 1972
Spinus pinus	Newton	Feb 1974
Spinus tristis	LaSalle	Dec 1939
Spinus tristis	Newton	Dec 1973
Chlorura chlorura (*Oberholseria chlorura*)	LaSalle	Dec 1939
Passerculus sandwichensis	Cottle	Apr 1962
Passerculus sandwichensis	Burleson	Jan 1969
Passerculus sandwichensis	Newton	Mar 1974
Ammodramus savannarum	Cottle	Apr 1962
Ammodramus savannarum	Kenedy	Mar 1969
Ammodramus henslowii	Brazos	Feb 1945
(*Nemospiza henslowii*)		
Pooecetes gramineus	Jones	Apr 1957
Pooecetes gramineus	Cottle	Apr 1962
Pooecetes gramineus	Jackson	Feb 1969
Pooecetes gramineus	Burleson	Jan 1973
Aimophila aestivalis	Newton	Oct 1973
Aimophila cassinii	Cottle	Apr 1962
Amphispiza belli	Presidio	Oct 1966
Junco hyemalis	Newton	Feb 1974
Spizella passerina	San Saba	Mar 1938
Spizella passerina	Kenedy	Sept 1968
Spizella pallida	Terrel	Mar 1942
Spizella pusilla	LaSalle	Dec 1939
Spizella pusilla	Newton	Feb 1974
Zonotrichia querula	Burleson	Dec 1972
Zonotrichia querula	Washington	Feb 1973
Zonotrichia leucophrys	LaSalle	Dec 1939
Zonotrichia leucophrys	Cottle	Apr 1962
Zonotrichia leucophrys	Wood	Apr 1966
Zonotrichia leucophrys	Burleson	Dec 1972
Zonotrichia albicollis (*Z. pensylvanica*)	Burleson	Dec 1972
Passerella iliaca	Lubbock	Dec 1965
Melospiza lincolnii	LaSalle	Dec 1939
Melospiza lincolnii	Newton	Apr 1974
Melospiza georgiana	Kenedy	Jan 1969
Melospiza melodia	Falls	Feb 1956
Melospiza melodia	Presidio	Nov 1967
Melospiza melodia	Washington	Feb 1973
Calcarius lapponicus	Waller	Dec 1972

Department of Wildlife & Fisheries Sciences, Texas A&M University, College Station 77843.

A NEW EARLY EGG-DATE RECORD FOR GREAT BLUE HERONS IN TEXAS

THE resident Gulf coast population of the Great Blue Heron, *Ardea herodias wardi*, is supposed to have a breeding season that is ". . . much prolonged and one is apt to find either eggs or young in the nests at any time during the winter or spring" (Bent, U.S. Nat. Mus. Bull. 135, 1926). In Florida this seems to be true with egg-dates that range from 15 November (Howell *Florida Bird Life*, Coward-McCann, New York, 1932) to 21 April (Bent, *op. cit.*). But the Texas records suggest a much later breeding season than that found in Florida. The 93 Texas egg-dates I was able to find (in Bent, *op. cit.*; unpublished portions of Oberholser, *Bird Life of Texas*, Univ. Texas Press, 1974; and R. W. Quillan Egg Collection, Welder Wildlife Foundation) ranged from 20 February (Aransas County) to 11 July (Matagorda County). (After this manuscript was submitted for publication, an additional nesting date was brought to my attention by Mr. Ray Telfair, who, with several other observers, discovered a nest with eggs on 24 July 1974 in Nueces County.) In light of these records I present the following observation.

On 5 February, 1973, I visited the heronry on Hog Island (Redfish Bay, Aransas County) and found nine Great Blue Heron nests with partial or complete clutches of eggs and three more nests containing chicks. The most advanced nest had three chicks ranging in age from a few hours (still wet) to seven/eight days (pin feathers erupting). Subtracting the species' incubation period of 25-29 days (Pratt, Condor, 72:407-416, 1970), it can be deduced that the oldest chick's egg must have been laid about 1 January. This is seven full weeks earlier than the existing (20 February) record. And this does not represent a single, freak occurrence, as attested to by the other 11 nests that also eclipsed the old record. While conducting ethological research on the island for the next five months I saw these early chicks fledge successfully.

It is unlikely that 1973 was the first time that Great Blue Herons nested so early in Texas. It is far simpler to assume that they nest early most years in Texas as elsewhere, but that few observers visit the colonies during the winter; clearly more observations are needed.

The factors that trigger the onset of nesting are not well understood for any heron species. The ultimate factor is probably food availability (Lack, *The Natural Regulation of Animal Numbers*, Oxford Press, London, 1954), but the actual stimuli (proximate factors) to the birds could include temperatures, water depths, salinities, or other variables in addition to food. Any environmental variable(s) that reliably forecasts future food supplies (e.g., warming bay waters that might allow immigration and spawning of fish) could serve as a potential information source for the herons. Social stimulation from other herons is probably also important. Since environmental factors vary from year to year, long-term observations will be required to determine which factors actually trigger the onset of nesting. Hopefully this note will encourage ornithologists and bird-watchers to keep records of heron nesting dates in Texas so that patterns can begin to emerge.—*DOUGLAS W. MOCK, Rob and Bessie Welder Wildlife Foundation, Sinton, Texas 78387.*

NOTEWORTHY BIRD RECORDS FROM THE GUADALUPE MOUNTAINS

COMPARATIVELY little information has been published regarding the avifauna of the Guadalupe Mountains of southeastern New Mexico and far west Texas. LaVal (1969, *Bull. Texas Orn. Soc.* 3:24) reported three uncommon species of raptors from McKittrick Canyon which he encountered during June, 1968. Several new and unusual bird records for the Guadalupes were recently reported by Newman (1974, *Southwest. Nat.* 19:1-7), who also published (1974, Natl. Park Serv.) a check-list of species from the newly established Guadalupe Mountains National Park, Texas. In 1972, Steve West compiled a mimeographed list of birds of Carlsbad Caverns National Park, New Mexico, a few miles to the northeast.

During mid-afternoon on 25 March, 1975, six members of my ornithology class and I watched a pair of Eastern Bluebirds (*Sialia sialis*) carry food (mostly caterpillars) to their nest-hole about 18 feet up in a dead willow trunk at Rattlesnake Springs in Carlsbad Caverns National Park. The rusty color of their chests extended well onto their throats. This species is considered "accidental" locally from November through January (West, p. 11). The record is noteworthy for two other reasons: (1) it is unusually early; in Oklahoma, the earliest date Sutton (1967, *Oklahoma birds*, p. 437) recorded young in the nest was April 13, 1963, and (2) it is the first known breeding record for New Mexico (cf. Hubbard, 1970, *Check-list of the birds of New Mexico*, p. 68), filling the expanse between central Texas (Oberholser and Kincaid, 1974, *Bird-life of Texas*, p. 424) and southeastern Arizona (Phillips, *et al.*, 1964, *The birds of Arizona*,

p. 131). The dense brush, marshy habitat and substantial growths of willow and cottonwood trees around Rattlesnake Springs provide ideal habitat for this and many other species of birds.

Later on the same day we flushed two Ground Doves, *Columbina passerina*, from dense brush at the edge of a cattail-choked seep near the main spring. On one individual, I clearly observed the short rounded tail (which showed no white) and the dorsal "scaly" featheration that was confined to the head and nape. In flight their primaries flashed a dark rust color. Apparently this constitutes the first published record for the species in either national park, as it is lacking on both bird lists. However, Hubbard (*op. cit.*, p. 38) states that the Ground Dove is "apparently resident" and breeds in the Carlsbad area.

Near this same place, and along a small creek resulting from the seepages, we also flushed a Brown Thrasher, *Toxostoma rufum*, which is listed as an uncommon fall and winter visitor in Carlsbad Caverns National Park (West, p. 10), but not mentioned on the Guadalupe Mountains list.

At Rattlesnake Springs, on 27 March, we observed at least eight Tree Swallows, *Iridoprocne bicolor*, making low passes over a small pond bordered by willows and cattails in company with ten or more Violet-green Swallows, *Tachycineta thalassina*. The former species is not listed for the Guadalupes, and is considered "rare" in spring and late summer at Rattlesnake Springs (West, p. 8).—JACK D. TYLER, *Department of Biology, Cameron University, Lawton, Oklahoma 73501.*

BROWN-HEADED COWBIRD FLOCK AGGRESSION TOWARD A PURPLE MARTIN

IN Sherman, Texas, on the evening of 20 February 1975 at 6:30 p.m. I was watching four pairs of Purple Martins (*Progne subis*) feeding above and around their nesting colony prior to roosting in my large martin houses. About 200 yards from the colony a roost of House Sparrows (*Passer domesticus*), Starlings (*Sturnus vulgaris*), and Brown-headed Cowbirds (*Molothrus ater*) was located in a thick tree adjacent to a human dwelling.

During the aforementioned time each evening, flocks of cowbirds and Starlings frequently pass over the martin houses en route to the roost. Martins do a considerable amount of feeding in the nearby vicinity also at this time. I had never noted antagonism between martins or cowbirds or Starlings during this time period.

About 6:30 p.m. on this particular evening all the martins except one of the females retired to the nest boxes and were settling down for the night. I was watching this female feeding approximately 30 feet above the boxes when I noticed a group of about 20 cowbirds winging toward the roost. They passed quite close to the martin, then suddenly turned and gave chase to the martin. They pursued her rapidly and closely, and she began complicated flight maneuvers—twisting and turning—apparently to elude the cowbirds. Martins are known for their tremendous speed, and this martin was flying very rapidly, but the cowbirds seemed to have no difficulty in pursuing the martin quite closely. The martin was unsuccessful in her attempts to elude the cowbirds and after a short chase, the cowbirds disengaged themselves and proceeded to the roost. The martin went to the nest boxes.

Throughout the action the cowbirds had no apparent leader, and all moved in perfect unison. I had never observed this type of cowbird behavior before. Flocking habits of cowbirds, grackles, blackbirds, and Starlings are well known, but evidently flock aggression is rarely performed.—CHARLES R. BROWN, *1804 W. Hunt, Sherman, Texas 75090.*

BROWN PELICAN FROM SOMERVILLE LAKE, BURLESON AND WASHINGTON COUNTIES, TEXAS

ON 16 May 1974, I sighted an adult Brown Pelican (*Pelecanus occidentalis*) on Somerville Lake near Welch Park. During the initial afternoon observations, the bird remained on the water except for three short flights of 20-70 meters each. The bird was studied and photographed for about 1 hour. A photograph of the pelican has been placed in the Texas Photo-Record File (No. 64). Members of the Brazos Ornithological Society observed the Brown Pelican from 1730 to 1830 hours the same evening near Welch Park. The pelican appeared to be healthy as it was observed in flight less than 2 meters above the water, flying into a strong wind toward Rocky Creek Park. The bird was sighted again the afternoon of 17 May 1974 at Somerville Lake by Steve Hawkins, then a student at Texas A&M University. After a thorough search of the lake on 18 May 1974, the bird could not be found.

In view of the catastrophic decline in Brown Pelican numbers in Texas since the late 1950's this observation becomes significant. The last Texas published inland record for the Brown Pelican (Oberholser, *Bird Life of Texas* (1):80-83, 1974) was in Dallas County in April 1963. The present observation represents the first record of a Brown Pelican for Burleson and Washington counties.

Although post nuptial wandering has been reported for the Brown Pelican, this sighting during the early phases of the Texas breeding season apparently rules out this possibility. In the June 1974 TOS Newsletter, a single Brown Pelican was reported on 14 April 1974, from near High Island, Texas. The scarcity of observations of Brown Pelicans along the upper Gulf Coast and the proximity in time of the High Island and the Somerville Lake sighting suggest that these sightings may have been of the same individual.—R. DOUGLAS SLACK, *Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, Texas 77843.*

TOWNSEND'S SOLITAIRE DRINKING FROM DRIPPING WATER FAUCET

AT 0945 on 18 March, 1973, my class and I watched a Townsend's Solitaire (*Myadestes townsendi*) repeatedly fly from a low perch and hover while drinking from a slowly dripping water faucet in Fort Davis State Park, Jeff Davis County, Texas. It was a mild day, with ambient temperature about 55°F and little or no wind. The bird visited the faucet on 16 different occasions as we watched, hovering hummingbird-like two to three seconds in front of it while drinking the slowly forming drops. After each trip, the solitaire returned to the top of a short post behind and eight inches above the faucet, or to a small tree about five feet distant. Timed intervals of 9, 11, 12, 11 and 13 seconds lapsed between sorties and of 17, 18, 20 and 21 seconds between drips from the faucet.

Birds such as Robins (*Turdus migratorius*) and Cedar Waxwings (*Bombycilla cedrorum*) often are seen drinking after gorging on cedar or mistletoe berries (pers. comm., G. M. Sutton). These are favorite foods of the solitaire, too, and if the bird we observed needed water after eating them, the faucet was the only available source. In the early 1870's, H. W. Henshaw observed hundreds of solitaires congregating at a desert water hole near Zuni, New Mexico, possibly for the same reason (see Bent, 1949, U. S. Natl. Mus. Bull. 196, p. 323).

In manner of feeding, various authors have mentioned the solitaire's habit of "hawking" for airborne insects, flycatcher-like. But none, so far as I know, has heretofore reported the drinking behavior described above.—JACK D. TYLER, *Department of Biology, Cameron University, Lawton, Oklahoma 73501*

BOOK REVIEWS

THE LIFE OF BIRDS by Joel Carl Welty. Second Edition. W. B. Saunders, N.Y. 1975. 623 pp. Numerous illustrations. $18.50.—With this recently released second edition of *The Life of Birds* Joel Carl Welty quite ably provides the student of ornithology an excellent as well as entertaining reference book that encompasses the basic facts of bird biology along with numerous examples and anecdotes from avian observation. It is a textbook that certainly should be used in college-level introductory courses, but that is also gratifyingly devoid of the usual modern textbook paraphernalia like bold-faced "key" terms and end of the chapter exercises that too often are distractions to the general reader. The book serves as an invaluable collection of recent (especially since 1960) literature citings of research, papers, and suggested reading for further pursuit of topics.

The book is handsomely designed with good illustrations and photographs that aptly contribute to the very readable text. The reader will of course encounter some technical vocabulary and concepts, but these are clearly explained and readily comprehensible. To make the reading even more enjoyable Dr. Welty introduces each chapter with an appropriate and piquant verse and regularly intersperses interesting side comments like the reported death of Aeschylus caused by an eagle dropping a tortoise on the Greek's bald head which the bird mistook for a smooth rock.

Those chapters which might be particularly interesting to the amateur ornithologist and which might prove useful as confirmation or explanation of puzzling field observations to the curious bird-watcher include feeding habits which contained the Aeschylus obituary; behavior which is variously categorized into individual, social, courtship and mating habits; bird songs, calls and other sounds which are often important in helping the birder's identification; and the migration habits with several sections devoted to the amazing avian sense of orientation. A more esoteric chapter on the origin and evolution of birds is a fascinating discussion that illustrates fundamental theories of present day biological thought like the generally accepted evolution of birds from reptiles and Darwinian speciation. Finally the last chapter, "Birds and Man," (which did not appear in the first edition) greatly concerns all of us in better understanding our relationships and respective roles with birds as co-inhabitors of the earth.

The Life of Birds is a welcome and useful addition to avian literature. It presents revealing perspectives of the nature and growth of ornithological studies as they relate to the broad science of biology. Such insights, though not always obvious to the non-professional ornithologist, are necessary to increase one's appreciation and enthusiasm for understanding life among the birds.—Molly Walker.

ORNITHOLOGY FROM ARISTOTLE TO THE PRESENT by Erwin Stresemann. Trans. by Hans J. and Cathleen Epstein; edited by G. William Cottrell, with a foreword and epilogue on American ornithology by Ernst Mayr. Harvard University Press, Cambridge. 1975. 432 pp. $20.00.—Until now, the student of birds who wished to gain an historical perspective of ornithology was hard-pressed to find a general historical account of ornithology. One appeared in the early part of the century in Newton's *Dictionary of Birds*; but the most complete history was Stresemann's *Entwicklung der Ornithologie*, published in German in 1951 and generally unavailable in this country, as it has been a rarity on the second hand market for quite some time.

With this translation of Stresemann's notable account under the title, *Ornithology from Aristotle to the Present*, we now have an authoritative and very interestingly written history of ornithology. Stresemann's highly regarded book has been the classical reference in this area for a quarter of a century, and if anything is puzzling, it is why it has gone so long untranslated, since the large majority of ornithologists—both amateur and professional—speak English.

Among European ornithologists, Stresemann's eminence is unchallenged. The depth and scope of his knowledge of birds was legendary, and few scholars have had the tremendous grasp of ornithology which was required to write this interpretive history. One of Dr. Stresemann's students, the well-known ornithologist and evolutionary biologist Ernst Mayr, of Harvard, has written a foreword and interesting epilogue on American ornithology which will be of interest to scientifically inclined students of birds. Mayr's contribution does not pretend to be a "last chapter" to Stresemann's book, which clearly stands alone as a unit, and which can be appreciated by the general reader who wishes to understand and identify with those personalities in the past who had an exceptional interest in birds.

Ornithology from Aristotle to the Present is fortunately more than a series of biographical sketches of ornithologists. It generalizes historical events and integrates the historical accounts with the important political, social and philosophical trends of the day. It is truly a capably written history of ornithology, and it is likely to remain the standard for many years.—M. K. R.

NOTICE

Over 7,100 Brown-headed Cowbirds were banded and color-marked in west-central Kansas during 1974 as an aid in studying their movements and hopefully to determine their place of origin. Birds were marked with red, yellow or green plastic leg streamers. Fall and winter observations revealed 27 individuals from ten locations in Kansas, Oklahoma, Texas, and Mexico. However, data from spring and summer movements are needed. Observers should report location and date of sighting, sex of bird, and color of leg streamer to Richard A. Hill, Department of Biology, Fort Hays Kansas State College, Hays, Kansas 67601.

RECENT ARTICLES ABOUT TEXAS BIRDS

Leonard, R. Michael and Ernest B. Fish. 1974. *An aerial photographic technique for censusing Lesser Sandhill Cranes.* Wildl. Soc. Bull. 2:191-195. Method tested at Muleshoe NWR. Best results are achieved with water as background.

Marion, Wayne R. 1974. *Status of the Plain Chachalaca in South Texas.* Wilson Bull. 86:200-205. Cultivation and housing development have reduced suitable habitat. Population trends are unknown but artificial feeding, reduced predation, and transplanting may have caused slight increases in recent years.

Rylander, M. Kent and Eric G. Bolen. 1974. *Analysis and comparison of gaits in whistling ducks* (Dendrocygna). Wilson Bull. 86:237-245. Differences and similarities can be related to feeding habitats—aquatic or terrestrial.

Mock, Douglas W. 1974. *Aerial hunting by Little Blue Herons.* Wilson Bull. 86:280-282. Observations made at Welder Wildlife Refuge. Aerial hunting was practiced only during late summer and generally at dawn and dusk. Several suggestions are made for the seasonal and daily timing.

Howe, Marshall A. 1974. *Observations on the terrestrial wing displays of breeding Willets.* Wilson Bull. 86:286-288. Observations made near Corpus Christi in spring 1973. Wings of male are held vertical during pre-copulation and defense of nesting and feeding territories. Both sexes do this when alighting on feeding and nesting territories and when confronting conspecifics at boundary of territories. Calls and display variabilities are discussed.

Ohlendorf, Harry M. 1974. *Competitive relationships among kingbirds* (Tyrannus) *in Trans-Pecos Texas.* Wilson Bull. 86: 357-373. The Western (*T. verticalis*) generally lives and nests below 4000 feet in desert scrub and farmland; Cassin's (*T. vociferans*) above 4000 feet in pine-oak-juniper habitats. Both preferred nesting in trees but western often used man-made objects. Although both ate the same foods and foraged in a similar manner, competition was avoided by using different habitats.

Casto, Stanley D. 1974. *Molt schedule of House Sparrows in northwestern Texas.* Wilson Bull. 86(2):176-177. Occurred from May through November and was strongest in September.

Marion, Wayne R. and Raymond J. Fleetwood. 1974. *Longevity of Chachalacas.* Bird-Band. 45(2):178. Of 10 banded in 1964 and 1966, the following were retrapped: one 8(plus) year-old male, four 7 year-olds, and the others were at least 5 years old.

Marion, Wayne R. and Raymond J. Fleetwood. 1974. *Longevity of Green Jays.* Bird-Band. 45(2):178. One bird was at least 9 years old, other 8 years old.

Wiens, John A. 1974. *Habitat heterogeneity and avian community structure in North American grasslands.* Amer. Midl. Nat. 91(1):195-213. Considers Shrubsteppe, Palouse Prairie, and Great Plains including Pantex site in Texas Panhandle. In general, vegetational heterogeneity increased as grass cover, annual precipitation, and annual net primary production decreased. Vegetational heterogeneity increased with increasing bare ground and cover of woody vegetation. Bird density and biomass decreased as vegetational heterogeneity increased. Bird species diversity was variable. "Simplistic generalizations, such as those relating structural complexity to avian attributes (MacArthur 1965), may be inherently pleasing and may apply in some habitat types, but seem unrealistic in grasslands" (p. 209).

Rylander, Michael Kent and Eric G. Bolen. 1974. *Feeding adaptations in whistling ducks* (Dendrocygna). Auk 91(1):86-94. The Black-bellied Whistling Duck (North American grazing feeder), Fulvous Whistling Duck (North American aquatic sieving feeder) were compared with two Australian whistling ducks of similar feeding habits. Characteristics of bills, tongues, and brains were similar for terrestrial grazers and different from those of water sievers. These characteristics are believed to be adaptions to the particular types of feeding. (Reviewer's note: these ducks may be better known to some as tree ducks.)

Delnicki, Don. 1974. *Ross' Goose-Snow Goose hybrid in south Texas.* Auk 91(1):174. Near Mathis, San Patricio County; believed to be first one in Texas.

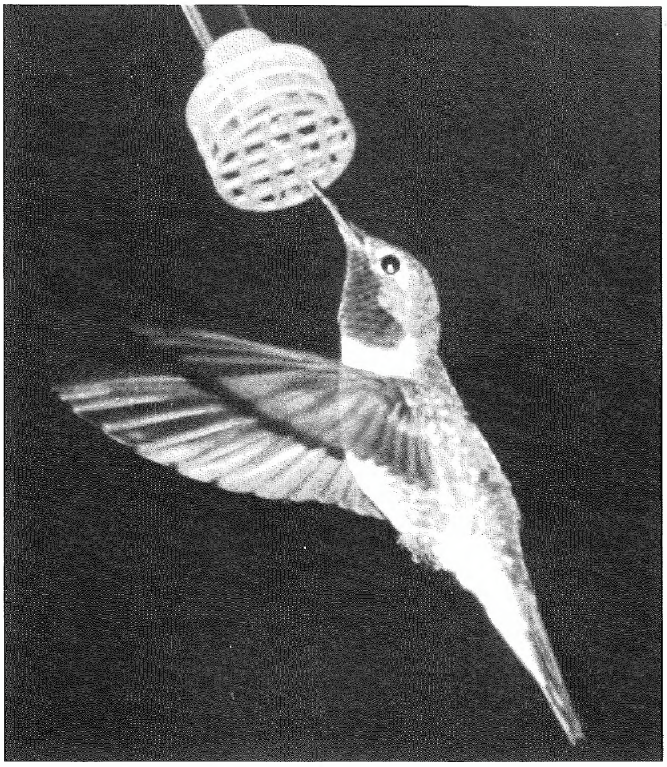
Novy, Frank O. and Albert D. McGrew. 1974. *Orange-breasted Bunting in southern Texas.* Auk 91:178-179. Adult male *Passerina leclancherii* was netted near Mission, Texas. It is not believed to be an escaped captive.

Martin, Robert F. 1974. *Syntopic culvert nesting of Cave and Barn Swallows in Texas.* Auk 91:776-782. The study area is along U.S. Highway 90 from Hondo to Comstock. The Cave Swallow has broadened its nesting habitat by the use of man-made structures. Synchronous nestings in the same culverts subjects these birds to potential hazards of increased competition, diseases, and breakdown of reproductive isolating mechanisms.

Moldenhauer, Ralph R. 1974. *First Clay-colored Robin collected in the United States.* Auk 91:839-840. *Turdus grayi* taken by Michael Whitley near Huntsville.

Ligon, J. David and Sandra L. Husar. 1974. *Notes on the behavioral ecology of Couch's Mexican Jay.* Auk 91:841-843. They studied Couch's in Chisos Mountains and compared their findings with those of others for the Arizona race. Similarities between the races include nest helpers, unspotted eggs, and rootlets used in nest cup linings. Differences were black bill in immature Couch's and rattle call is present in this race.

Black-chinned Hummingbird James Hansford



Weske, John S. 1974. *White-winged Junco in Texas.* Condor 76:119. Immature male collected near Quitaque in Briscoe County.

Wiens, John A. 1974. *Climatic instability and the "ecological saturation" of bird communities in North American grasslands.* Condor 76:385-400. Study sites were in the Panhandle (Pantex), north through Great Plains and west including Palouse Prairie and shrubsteppe area. From author's summary: "Analysis of records . . . showed that yearly rainfall fluctuated considerably . . . but was most variable in shortgrass areas; intermediate in shrubsteppe, Palouse, and mixed-grass prairies; and least variable in tallgrass." He suggests that rainfall fluctuations limit the number of species which can persistently exploit grassland habitats.

Newman, George A. 1974. *Recent bird records from the Guadalupe Mountains, Texas.* Southwest. Nat. 19:1-7. Contains annotated list of 17 species and establishes or confirms new or old records for this area of Texas.

Boeker, Erwin L. 1974. *Status of Golden Eagle surveys in the Western States.* Wildl. Society Bull. 2:46-49. Airplane surveys over Texas were discontinued after 1969 "because the projected population in this area was consistently low, never exceeding 200 eagles. . . ." In 1970, the Division of Wildlife Services (U.S. Fish and Wildlife Service) began recording numbers seen during regular field duties. Greatest numbers were seen in Wyoming (16.7/1000 miles), lowest in Oklahoma (0.1/1000 miles), and 0.4 eagles/1000 miles in Texas.

Wallace, Robert A. 1974. *Aberrations in the tongue structure of some melanerpine woodpeckers.* Wilson Bull. 86(1): 79-82. Discusses the very specialized tongue structure of woodpeckers, in particular, specimens of Red-bellied, Golden-fronted, Red-headed, and two Caribbean species.

Jackson, Jerome A. and James Tate, Jr. 1974. *An analysis of nest box use by Purple Martins, House Sparrows, and Starlings in eastern North America.* Wilson Bull. 86:435-449. Results summarized from questionaires distributed throughout eastern U.S.; eight were returned by Texans. Recommended reading for present and future builders of martin nest boxes

(Abstracts prepared by James Griffing)

BULLETIN
OF THE
TEXAS ORNITHOLOGICAL SOCIETY

MICHAEL KENT RYLANDER, Editor
Department of Biological Sciences
Texas Tech University
Lubbock, Texas 79409

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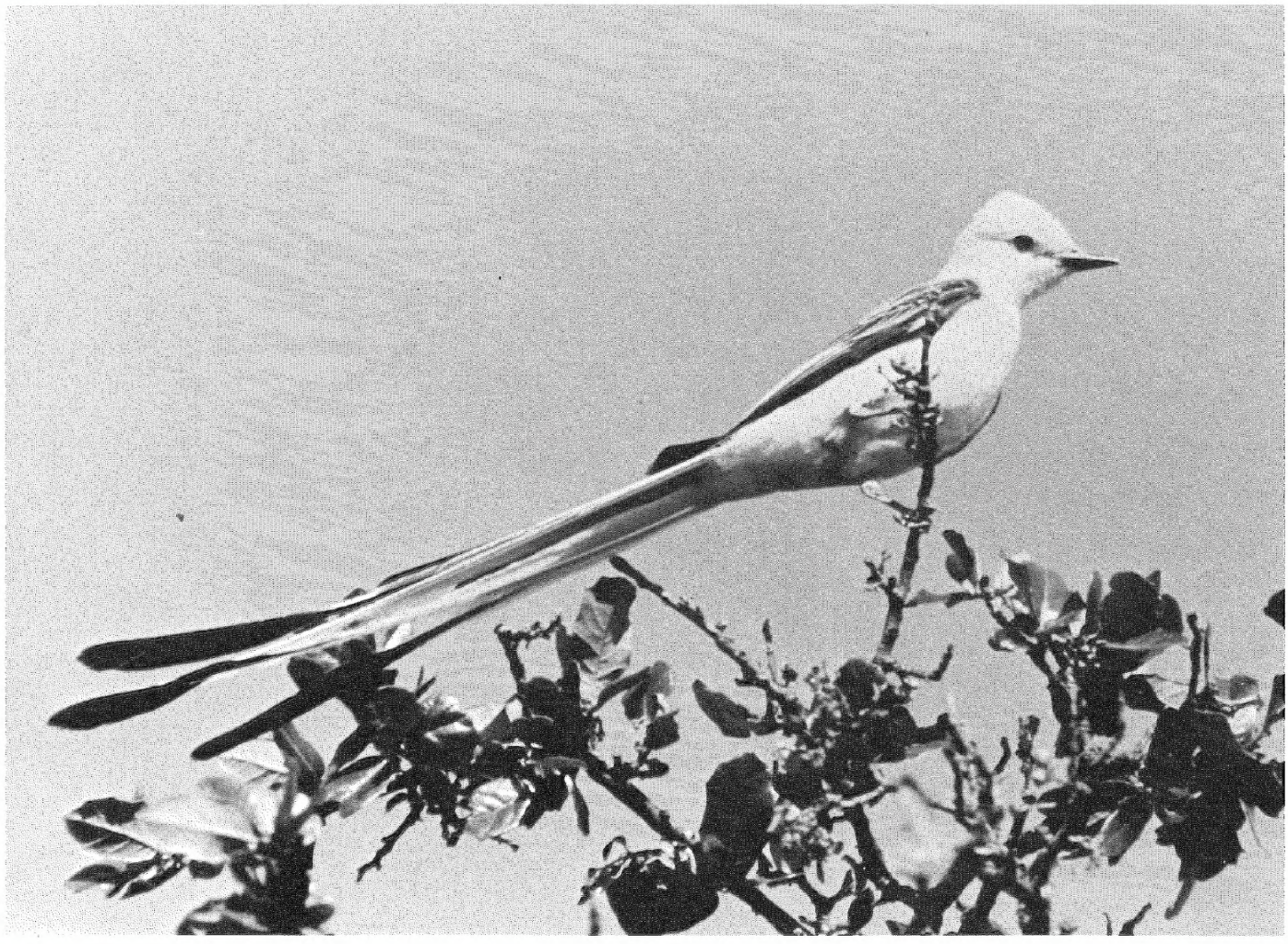

Scissor-tailed Flycatcher

Mark Byard